



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,969	02/06/2004	Terrence P. Byrnes	B10-005-01-US	7345
22854	7590	03/22/2006	EXAMINER	
MOORE, HANSEN & SUMNER, PLLP 225 SOUTH SIXTH ST MINNEAPOLIS, MN 55402			GRAYSAY, TAMARA L	
			ART UNIT	PAPER NUMBER
			3636	

DATE MAILED: 03/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/773,969	Applicant(s) BYRNES, TERRENCE P.	
	Examiner Tamara L. Graysay	Art Unit 3636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 7-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-18 are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>(1 page)</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Election/Restriction*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-6, drawn to an umbrella and misting system, classified in class 135, subclass 96.
  - II. Claims 7-13, drawn to a misting system, classified in class 239, subclass 280.
  - III. Claims 14-18, drawn to a method of manufacturing an umbrella and misting system, classified in class 135, subclass 905.
2. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)).

In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination does not require the fluid port and manifold of the subcombination. The subcombination has separate utility such as on the perimeter of a lounge chair, because the umbrella is only recited in a preamble recitation of intended use.

3. Inventions I and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)).

Art Unit: 3636

In the instant case the product, as claimed can be made by another materially different process such as one that does not require the step of providing a water conduit within the pole, but instead providing separate tubes along the pole; or, one that does not require the step of locating a manifold proximate the first ends of the spokes, but instead providing a manifold at the water source upstream of a pressure valve to individually adjust the pressure at each tube.

4. Inventions II and III are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)).

In the instant case the product claimed could be made by another materially different process such as one that includes the step of providing a fluid port.

5. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper. Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper. Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

Art Unit: 3636

6. During a telephone conversation with Mr. Allen Oh, Reg. No. 42047, on 16 March 2006 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-6. Affirmation of this election must be made by applicant in replying to this Office action. Claims 7-18 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Oath/Declaration***

MPEP § 602.04(IV) reads:

37 CFR 1.63 no longer requires the oath or declaration to state that the inventor is a sole or joint inventor of the invention claimed.

When joint inventors execute separate oaths or declarations, each oath or declaration should make reference to the fact that the affiant is a joint inventor together with each of the other inventors indicating them by name. This may be done by stating that he or she does verily believe himself or herself to be the original, first and joint inventor together with "A" or "A & B, etc." as the facts may be.

7. Although the declaration indicates, at the third paragraph, that the inventor is original, first, and joint, it is presumed that applicant intended to state original and first inventor, because one inventor is listed on the last page of the declaration and on the application data sheet, i.e., no reference is made to any other inventor. [Emphasis added]

*Drawings*

8. The drawings are objected to because of the following:
  - a. They fail to comply with 37 CFR 1.84(p)(4) because FIG. 5 depicts reference character(s) 160 as the aperture in pole 104; however, the description at the penultimate sentence of [0029] mentions reference character 118 for the aperture in pole 104. It is recommended that reference character 118 in [0029] be changed to 160, for consistency.
  - b. They fail to comply with 37 CFR 1.84(p)(4) because reference character “134” has been used to designate both embodiments of the manifold (e.g., FIGS. 4-5 and FIGS. 6-7). It is suggested that a distinguishing reference character be used for the alternative embodiment, i.e., 134a.
  - c. They fail to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: “124” (FIG. 6).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claim 1, 2, 5 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Dong (US-2004/0129303).

a. Claim 1: Dong discloses an umbrella (10) comprising a pole (25) defining a substantially vertical axis; a plurality of spokes having first and second ends (21) and operatively connected to the pole at one end and configured in an open position (FIG. 2); an umbrella member (fabric 27 depicted in FIG. 1) supported on the spokes (schematically shown in FIG. 1), the umbrella member defining a perimeter when the spokes are in the open position (FIG. 1); and a plurality of misting nozzles (57) proximate the second ends of the spokes coupled to tubes (55) adapted to feed the misting nozzles when the tubes are coupled to a water source, the nozzles being directed to provide a curtain of mist substantially outside a user placement zone located within the perimeter defined by the umbrella member under substantially windless conditions when the spokes are in the open position (FIGS. 7-8 depict an embodiment where the nozzles are adjustable including directing the nozzles outside the perimeter of the umbrella fabric, e.g., the leftmost position in FIGS. 7 and 8 are directed outside the perimeter of the umbrella).

- b. Claim 2: Dong includes a manifold (e.g., 51) comprising an inlet (52) adapted to be coupled to the water source (via 54 and 65 in FIG. 4, or 62, 64, and 65 in FIG. 9).
- c. Claim 5: The Dong tubes are inherently flexible insofar as the embodiment of FIG. 7-8 that include a pivot arrangement.
- d. Claim 6: The Dong adjusting plates 70 are clips, as broadly recited, to secure the tubes to the spokes.



***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dong (US-2004/0129303) in view of Hagen (US-2727366).

a. Claims 3 and 4: Hagen teaches an umbrella that sprays water outwardly of the umbrella member in order to provide a curtain of mist that provides a cooling effect to the air surrounding the umbrella and the thus the persons under the umbrella (e.g., 1:30-34).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the direction of the Dong nozzles to be directed outward of the umbrella member perimeter, such as suggested by Hagen, in order to lower the air temperature surrounding the perimeter of the umbrella whereby the area below the umbrella remains dry.

11. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen (US-2727366) in view of Dubinsky (US-3490469), Askin (US-1020071) and Apple (US-6682000).

a. Claim 1: Hagen discloses an umbrella (12) comprising a pole (10) defining a substantially vertical axis; a plurality of spokes having first and second ends (unnumbered, five of which are schematically shown in FIG. 1) and operatively

connected to the pole at one end and configured in an open position (FIG. 1); an umbrella member (fabric 12 depicted in FIG. 1) supported on the spokes (schematically shown in FIG. 1), the umbrella member defining a perimeter when the spokes are in the open position (FIG. 1); and a plurality of misting nozzles (e.g., end 30 of arms 28 and 29) coupled to tubes (arms 28, 29) adapted to feed the misting nozzles when the tubes are coupled to a water source (via 16), the nozzles being directed to provide a curtain of mist substantially outside a user placement zone located within the perimeter defined by the umbrella member under substantially windless conditions when the spokes are in the open position (2:32-38, FIG. 1).

Hagen is silent as to the closed configuration.

Dubinsky teaches an umbrella that is configurable between an open and closed position (conventional garden or beach umbrella having a canopy (14) structurally associated with ribs (not shown) hingedly associated with a center pole 16; 2:47-52). Dubinsky is configurable between an open and closed position in order to store the umbrella between periods of use in order to protect the canopy from exposure to sunlight, tree sap, and animal droppings, for example (1:28-41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the umbrella of Hagen to be configurable between an open and closed position, such as suggested by Dubinsky, in order to store the umbrella between periods of use in order to protect the canopy from exposure to sunlight, tree sap, and animal droppings.

Further, Hagen lacks the nozzles proximate the second ends of the spokes. However, the Hagen nozzle is intended to keep dry the persons within the umbrella perimeter due to the water curtain and to permit the area surrounding the umbrella perimeter to be watered.

Askin teaches a nozzle mounded directly on the umbrella at the top of the umbrella center post to provide a mist that does not impose on the area within the perimeter of the umbrella (e.g., 1:77-82). Apple teaches mounting nozzles proximate the second ends of the spokes of an umbrella (FIG. 1). Apple generally teaches mounting nozzles on an umbrella notwithstanding the direction of misting or intended use of the nozzle. Apple further suggests modifying the nozzles (3:28-31) depending upon a desired result or intended use of the umbrella.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the plurality of nozzles of the Hagen and Dubinsky combination, to include nozzles proximate the second end of the spokes, such as suggested by the Askin nozzle located on the umbrella and the perimeter placement of the Apple nozzles, as an alternative way of directing the water away from the umbrella perimeter. Such an arrangement would reduce the number of moving parts and reduce the amount of water that would fall at the perimeter of the umbrella as a result of the nozzles being located above and within the perimeter of the umbrella member.

- b. Claim 2: Hagen further includes a manifold (head 13 having one inlet and two outlets) having an inlet adapted to be coupled to the water source (the head is connected to the post 10 and fitting 14).
- c. Claim 3: Hagen further comprises a valve (valve 11) for adjusting the water pressure supplied from the water source 16 to the tubes 28, 29).
- d. Claim 4: Hagen further discloses the arrangement provides a curtain of mist outwardly relative to the vertical axis (schematically depicted in FIG. 1).
- e. Claim 5: The combination, in particular Apple, is silent as to the material used for the tubes (distribution lines 90). However, the examiner takes Official notice that the use of flexible material for water distribution lines is old and well known such as suggested by the flexible main supply line, which is a garden hose. Such an arrangement provides for inherent movement of an umbrella structure when opening and closing the umbrella. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the tubes (Apple distribution lines 90) to be formed from flexible material, in order to accommodate the opening and closing of the umbrella.
- f. Claim 6: The combination, in particular Apple, discloses clips (connectors 120, 3:19-21, FIG.4).

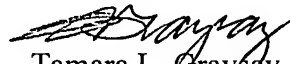
Art Unit: 3636

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara L. Graysay whose telephone number is 571-272-6728. The examiner can normally be reached on Mon - Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Cuomo, can be reached on 571-272-6856. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 3/16/06  
Tamara L. Graysay  
Examiner  
Art Unit 3636

20060304